

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,981	09/26/2000	Vellore T. Vetrivelkumaran	MS1-658US	4393
22801	7590	10/28/2004	EXAMINER	
LEE & HAYES PLLC			QURESHI, SHABANA	
421 W RIVERSIDE AVENUE SUITE 500			ART UNIT	
SPOKANE, WA 99201			PAPER NUMBER	

2155

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/670,981

Applicant(s)

VETRIVELKUMARAN ET AL.

Examiner

Shabana Qureshi

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 7-10, 12, 13, 16-21, 23, 24, 26-28, 31-33, 37, 38, 40-42, 45-48 and 51 is/are rejected.
7) ☒ Claim(s) 5, 6, 11, 14, 15, 22, 25, 29, 30 and 34-36, 39, 43, 44, 49, and 50, 35 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Art Unit: 2155

DETAILED ACTION

Claims 1-51 are pending in this office action.

Claims 1-4, 7-10, 12-13, 16-21, 23-24, 26-28, 31-33, 37-38, 40-42, 45-48, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim et al (US Patent No. 5,884,024, hereinafter Lim et al).

Claims 5, 6, 11, 14, 15, 22, 25, 29, 30, 34-36, 39, 43, 44, 49, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner would like to clarify that claim 34 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed July 20, 2004 have been fully considered but they are not persuasive.

Applicant argues that Lim does not teach "processing IP data packets from the clients if a Network address that is uniquely associated with the client is stored in a client table". Applicant further states that Lim discloses that IP packets are relayed from the client that include the assigned IP address (column 3, lines 1-10). Column 6, lines 55-67 of Lim's disclosure teach the use of a table that is used to map client IP addresses. Therefore, Examiner disagrees with the Applicant and maintains that Lim teaches the processing of IP data packets from clients if the network address uniquely associated with the client is stored in client table.

Art Unit: 2155

Applicant further argues that Lim does not teach the use of a filter that limits the total number of clients to a server. However, the cited portion discloses a filter that limits the total number of a client system by limiting the amount of IP addresses available to the client, therefore limiting the overall client utilization. Load balancing is also disclosed by the Prior Art in U.S. Patent No. 5,938,732 (column 7, lines 37-49; column 9, lines 35-44), which is a co-pending application to Lim et al incorporated by reference. Examiner maintains that it is deemed inherent to the invention of Lim based on the disclosure of load balancing to have a filter that limits the total number of clients on the network since the server of Lim would be inoperable if there were no filter because the server would be overloaded.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2155

Claims 1-4, 7-10, 12-13, 16-21, 23-24, 26-28, 31-33, 37-38, 40-42, 45-48, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim et al (US Patent No. 5,884,024, hereinafter Lim et al).

With regards to claims 1 and 45, Lim et al. teach an Internet protocol (IP) filter, comprising processor-executable instructions that, when executed on a processor, perform the following steps:

- monitoring Internet protocol data packets transmitted from one or more clients to a server (abstract; column 2, lines 55-59, relay agent monitors IP packets in network);
- obtaining a network address from an IP data packet transmitted by a client (column 3, lines 25-27); and
- processing IP data packets from the client if a Network address that is to uniquely associated with the client is stored in a client table (column 3, lines 23-35).

As per claims 2 and 46, Lim et al. teach the Internet protocol filter as recited in claim 1, further comprising processor-executable instructions that, when executed on a processor, perform the following steps:

- if the Network address is not stored in the client table, retrieving a client limit value from a client limit field, the client limit value indicating a maximum number of unique clients for which IP data packets can be processed (column 10, lines 35-67);
- processing IP data packets from the client if the number of Network addresses in the client table is less than the client limit value (column 10, lines 35-67); and
- storing the Network address in the client table (column 10, lines 35-67).

Art Unit: 2155

As per claims 3 and 47, Lim et al. teach the Internet protocol filter as recited in claim 1, wherein the client is a first client and the Network address is a first Network address, the Internet protocol filter further comprising processor-executable instructions that, when executed on a processor, perform the following steps:

- if the first Network address is not stored in the client table, retrieving a client limit value from a client limit field, the client limit value indicating a maximum number of unique clients for which IP data packets can be processed (column 10, lines 35-67);
- if the number of Network addresses in the client table is greater than or equal to the client limit value, determining if the first client is represented in the to client table by a second Network address that is different from the first Network address (column 10, lines 35-67); and
- processing IP data packets from the first client if the second Network address is found in the client table (column 10, lines 35-67).

As per claims 4 and 48, Lim et al. teach the Internet protocol filter as recited in claim 3, further comprising processor-executable instructions that, when executed on a processor, perform the following steps:

- removing the second Network address from the client table (column 9, lines 13-22);
and
- inserting the first Network address into the client table (column 9, lines 13-22).

As per claims 7 and 26, Lim et al. teach a method, comprising:

Art Unit: 2155

- detecting when a current client attempts to establish a connection with a server (column 2, lines 44-51);
- determining a unique client identifier that is associated with the current client;
- determining if a total number of previous clients having access to the server is less than a client limit (column 2, lines 59-67);
- determining if the current client has previously been allowed to access the server;
- providing access to the server if the total number of previous clients having access to the server is less than a client limit (column 2, lines 59-67);
- providing access to the server if the total number of previous clients is greater than or equal to the client limit and if the current client has previously been allowed to access the server (column 3, lines 40-55); and
- storing the unique client identifier associated with the current client in memory if access is provided to the current client (column 3, lines 11-21).

As per claims 8 and 27, Lim et al. teach the method as recited in claims 7 and 26, wherein the determining if a total number of previous clients having access to the server is less than a client limit further comprises:

- determining how many unique identifiers are stored in memory (column 3, lines 40-55); and
- comparing the number of unique identifiers in memory with the client limit (column 3, lines 40-55).

As per claim 9, Lim et al. teach the method as recited in claim 7, wherein the determining if the current client has previously been allowed to access the server is only

Art Unit: 2155

performed if the total number of previous clients having access to the server is greater than or equal to the client limit (column 3, lines 40-55).

As per claims 10 and 28, Lim et al. teach the method as recited in claims 7 and 26, wherein the determining if the current client has previously been allowed to access the server further comprises:

- comparing the unique identifier of the current client with the unique identifiers of each previous client that has been allowed to access the server (column 10, lines 36-60);
- determining that the current client has previously been allowed to access the server if the current client identifier matches a previous client identifier (column 10, lines 36-60).

As per claim 12, Lim et al. teach the method as recited in claim 7, further comprising:

- pre-configuring the client limit (column 8, lines 60-65); and
- storing the client limit in memory (column 8, lines 60-65).

As per claim 13, Lim et al. teach the method as recited in claim 12, wherein the client limit has a pre-defined maximum to which it may be configured (column 8, lines 60-65).

As per claim 16, Lim et al. teach the method as recited in claim 7, wherein the determining the unique client identifier that is associated with the current client further comprises identifying an Internet protocol address from a data packet transmitted by the current client.

Art Unit: 2155

As per claim 17, Lim et al. teach the method as recited in claim 7, further comprising storing the unique client identifiers in a client table in memory (column 3, lines 11-21).

As per claim 18, Lim et al. teach the method as recited in claim 7, wherein the client identifier is a network address (column 3, lines 11-21).

As per claims 19, 31 and 40, Lim et al. teach a server that provides access to a limited number of clients, comprising:

- memory (column 3, lines 11-21);
- a network interface configured to handle communications between the server and a plurality of clients (column 5, lines 1-26);
- an operating system stored in the memory (column 5, lines 1-10);
- a client limit stored in the memory, the client limit denoting a number of unique clients that are allowed to access the server (column 6, lines 45-54);
- an IP stack in the memory that is used to process data packets transmitted from clients (column 6, lines 45-50);
- a client table in the memory for storing a unique Network address for each client that accesses the server (column 6, lines 45-54); and
- a communications filter configured to allow access to a first client if the total number of clients that have accessed the server is less than the client limit, or if the total number of clients that have accessed the server is greater than or equal to the client limit and the first client has previously accessed the server (column 3, lines 20-55).

As per claim 20, Lim et al. teach the server as recited in claim 19, wherein the Communications filter is further configured to search the client table for a first Network address associated with the first client and determine that the first client has previously accessed the server if the first Network address is found in the client table (column 8, lines 56-67).

As per claim 21, Lim et al. teach the server as recited in claim 19, wherein the Communications filter is further configured to search the client table for a second Network address associated with the first client and determine that the first client has previously accessed the server if the second Network address is found in the client table (column 8, lines 56-67).

As per claim 23, Lim et al. teach the server as recited in claim 19, wherein the client limit is configurable (column 3, lines 40-55).

As per claim 24, Lim et al. teach the server as recited in claim 19, wherein the Communications filter is further configured to signal that the client limit has been exceeded and to deny server access to the first client if the total number of clients that have accessed the server is greater than or equal to the client limit, and the first client has not previously accessed the server (column 8, lines 60-67).

As per claim 32, Lim et al. teach the operating system as recited in claim 31, wherein the Communications filter is further configured to:

- allow the first client to access the operating system if the number of Network addresses in the client table is less than the client limit value (column 10, lines 35-67); and

Art Unit: 2155

- store the first Network address in the client table if the first client is allowed to access the operating system (column 10, lines 35-67).

As per claim 33, Lim et al. teach the operating system as recited in claim 31, wherein the Communications filter is further configured to allow the first client to access the operating system if the number of Network addresses in the client table is greater than or equal to the client limit value and the first client has previously accessed the operating system using a second Network address that is stored in the client table (column 10, lines 35-67).

As per claim 37, Lim et al. teach a computer-readable medium comprising computer-executable instructions that, when executed on a computer, perform the following steps:

- determining a first Internet Protocol (IP) address transmitted from a first client to a server (column 3, lines 25-35);
- searching a client table for the first Network address (column 3, lines 25-35); and
- allowing the first client to access the server if the first Network address is found in the client table (column 3, lines 25-35).

As per claim 38, Lim et al. teach the computer-readable medium as recited in claim 37, further is comprising computer-executable instructions that, when executed on a computer, perform the following steps:

- determining if a client limit has been reached, the client limit indicating a total number of clients that can access the server (column 10, lines 48-67);
- allowing the first client to access the server if the client limit has not been reached (column 10, lines 48-67); and

Art Unit: 2155

- inserting the first Network address into the client table (column 10, lines 48-67).

As per claim 41, Lim et al. teach the computer system as recited in claim 40, wherein the Communications filter is further configured to allow the first client to access the system if the number of entries in the client table is greater than or equal to the client limit and if the first client has previously accessed the system (column 8, lines 56-67).

As per claim 42, Lim et al. teach the computer system as recited in claim 41, wherein the

- Communications filter is further configured to determine if the first client has previously accessed the system if the first Network address is stored in the client table (column 8, lines 56-67).

As per claim 51, Lim et al. teach the communications protocol filter as recited in claim 45, wherein the communications protocol is an Internet protocol and the communications protocol data packets are Internet protocol data packets (column 5, lines 49-64).

Allowable Subject Matter

Claims 5, 6, 11, 14, 15, 22, 25, 29, 30, 34-36, 39, 43, 44, 49, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: "transmitting a signal to each Network address listed in the client table... if a client does not respond to the signal, removing the second address from the client table, inserting the first

network address into the client table and processing IP data packets from the first client” and “encrypting the client limit”.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (703) 308-6118. The examiner can normally be reached on Monday - Thursday, 9:30am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2155

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

SQ
October 18, 2004


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER